What is claimed is:

1. A reinforced composite structure, comprising:

(a) an elongate tubular member having first and second ends, a length of at least 10 feet, an outside surface defining an outer cross-sectional area of at least 28 square inches at a first location along the tubular member, and an inside surface defining a wall thickness of not more than 10 percent of an equivalent diameter of the outer cross-sectional area at the first location; and

(b) a resilient plastic body encapsulating only a portion of the outside surface of the tubular member including a portion proximal to the first end, the plastic body extending on the outside surface of the tubular member not closer to the second end than 20 percent of the length of the tubular member.

2. The composite structure of claim 1, wherein the encapsulation extends lengthwise on the outside surface of the tubular member for at least three equivalent diameters of the outer cross-sectional area.

3. The composite structure of claim 1, wherein the encapsulated portion of the tubular member extends to the first end of the tubular member.

4. The composite structure of claim 3, wherein the plastic body is approximately flush with the first end of the tubular member.

5. The composite structure of claim 3, wherein the plastic body encapsulates the first end of the tubular member.

6. The composite structure of claim 1, wherein the plastic body also substantially fills an axially extending portion of the tubular member.

7. A reinforced composite structure, comprising:

(a) an elongate tubular member having first and second ends, a length of at least 10 feet, an outside surface defining an outer cross-sectional area of at least 28 square inches at a first location along the tubular member, and an inside surface defining a wall thickness of not more than 10 percent of an equivalent diameter of the outer cross-sectional area at the first location; and

(b) a resilient plastic body encapsulating the first end of the tubular member and a portion only of the outside surface of the tubular member, the plastic body substantially filling the tubular member, extending on the outside surface of the tubular member not closer to the second end than 20 percent of the length of the tubular member.

8. The composite structure of claim 1, wherein the tubular member comprises fiber-reinforcing material.

9. The composite structure of claim 1, wherein the tubular member comprises fiberglass.

10. A reinforced composite structure, comprising:

(a) an elongate tubular member having first and second ends, a length of at least 10 feet, an outside surface defining an outer cross-sectional area of at least 28 square inches at a first location along the tubular member, and an inside surface defining a wall thickness of

not more than 10 percent of an equivalent diameter of the outer cross-sectional area at the first location;

(b) a resilient plastic body encapsulating only a portion of the outside surface of the tubular member including a portion proximal to the first end, the plastic body extending on the outside surface of the tubular member not closer to the second end than 20 percent of the length of the tubular member; and

(c) a reinforcing element contacting the inside surface of the tubular member.

11. The composite structure of claim 10, wherein the reinforcing element comprises a shear-resistant material substantially filling the tubular member.

12. The composite structure of claim 11, wherein the shear-resistant material is concrete.

13. The composite structure of claim 10, wherein the reinforcing element comprises an elongate reinforcing member extending within the tubular member and being in proximate contact with a portion only of the inside surface thereof.

14. The composite structure of claim 13, wherein the reinforcing member comprises a longitudinally distributed plurality of loop elements.

15. The composite structure of claim 14, wherein adjacent loop elements of the reinforcing member have a pitch spacing between approximately 25 percent and approximately 70 percent of the equivalent diameter of the tubular member.

16. The composite structure of claim 14, wherein the loop elements are helically formed.

17. The composite structure of claim 13, wherein the reinforcing member comprises a material selected from the group consisting of steel, nickel, carbon fiber, and fiberglass.

18. The composite structure of claim 13, wherein the reinforcing member has a cross-sectional area of between 0.02 percent and approximately 0.2 percent of the overall cross-sectional area of the tubular member.

19. The composite structure of claim 1, wherein at least a portion of the plastic body has a radial thickness outside of the tubular member being not less than approximately 5 percent of a co-located circumference of the tubular member.

20. The composite structure of claim 1, wherein the plastic body consists of a main polymeric component and an additive component, the main polymeric component comprising low-density polyethylene of which at least 60 percent is linear low density stretch film polyethylene, the additive component including an effective amount of an ultraviolet inhibitor.

21. The composite structure of claim 20, wherein the main polymeric component is at least 90 percent by wieght of the plastic body, the plastic body including not more than 5 percent by weight of high-density polyethylene.

22. A reinforced composite structure comprising:

(a) an elongate tubular member comprising fiberglass and having first and second ends, a length of at least 10 feet, an outside surface defining an outer cross-sectional area of at least 28 square inches at a first location along the tubular member, and an inside surface

defining a wall thickness of not more than 10 percent of an equivalent diameter of the outer cross-sectional area at the first location; and

(b) a resilient plastic body encapsulating a portion of the outside surface of the tubular member proximal to the first end, the plastic body extending on the outside surface of the tubular member partway only toward the second end thereof, the encapsulation extending lengthwise on the outside surface of the tubular member for at least three equivalent diameters of the outer cross-sectional area, the plastic body extending outside the tubular member not closer to the second end than 20 percent of a length of the tubular member, the plastic body comprising a main polymeric component and an additive component, the main polymeric component comprising low-density polyethylene of which at least 60 percent is linear low density stretch film polyethylene, the additive component including an effective amount of an ultraviolet inhibitor,

wherein at least a portion of the plastic body has a radial thickness outside of the tubular member being not less than approximately 5 percent of a co-located circumference of the tubular member.

23. A method for forming a composite structure, comprising the steps of:

(a) providing an elongate tubular member having having first and second ends, a length of at least 10 feet, an outside surface defining an outer cross-sectional area of at least 28 square inches at a first location along the tubular member, and an inside surface defining a wall thickness of not more than 10 percent of an equivalent diameter of the outer cross-sectional area at the first location; and

(b) encapsulating a portion of the tubular member in a plastic body, the encapsulating extending outside the tubular member not closer to the second end than 20 percent of a length of the tubular member.

24. The method of claim 23, comprising the further step of inserting a reinforcing element into the tubular member, the reinforcing element contacting the inside surface for stiffening the tubular member.

25. The method of claim 24, wherein the reinforcing element comprises a reinforcing member, the method comprising the further steps of forming the reinforcing member as a rod member having a longitudinally spaced plurality of loop elements and, prior to the encapsulating, inserting the rod member into the tubular member with at least a portion of each of the loop elements contacting circumferentially spaced locations on the inside surface of the tubular member.

26. The method of claim 24, wherein the step of inserting comprises feeding a liquidic reinforcing material into the tubular member, and solidifying the liquidic material.

27. The method of claim 26, wherein the liquidic material comprises material of the plastic body.

28. The method of claim 26, wherein the liquidic material comprises concrete.

29. The method of claim 23, wherein the encapsulating comprises:

(a) providing an injection mold having an elongate cylindrical cavity;

(b) loading the mold with the tubular member, a portion of the tubular member projecting from a main cavity portion of the mold;

(c) injecting a polymeric composition into the mold thereby encapsulating a portion of the tubular member; and

(d) cooling the mold to form the composite structure.

30. The method of claim 23, wherein the injecting comprises formulating the polymeric composition to comprise low density polyethylene, at least 60 percent of the polymeric composition being linear low-density stretch film polyethylene.

31. A method for forming a cushioned fender in a marine environment having underwater soil, comprising the steps of:

(a) selecting a reinforced composite structure according to claim 1; and

(b) driving the second end of the tubular member into the soil to a depth effective for stabilizing the tubular member and for positioning the plastic body as a cushioned barrier above the soil.